

REMARKS

Claims 1-9 are pending in the above identified application. Claim 1 has been amended by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action and Advisory Action, claims 1-4 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2003/0198155 (Go et al); and claims 5-9 were indicated as allowed. Reconsideration is respectfully requested.

Allowable Subject Matter

First, Applicants would like to thank the Examiner for the early indication of allowed subject matter in claims 5-9, as stated in the Advisory Action mailed January 17, 2008.

35 U.S.C. § 102 Claim Rejections

Claims 1-4 were rejected under 35 U.S.C. § 102(e) as being anticipated by Go et al. Reconsideration is respectfully requested.

Claim 1 has been amended to further clarify the invention. In particular, claim 1 has been amended to recite:

detecting during recording at least one unstable signal source of the optical disk drive and generating a detected value, wherein the unstable signal source is selected from a group including a level of a focusing error signal, a level of a tracking error signal and a frequency of buffer under-run occurrence ~~during recording~~;

In particular, the language of the claim has been amended to emphasize that the detection of *each* of the unstable signal sources (i.e., “a focusing error signal, a level of a tracking error signal and a frequency of buffer under-run occurrence”) occurs “during recording.” Support for the amendment is provided at least at page 3, paragraph [0008]; and page 8, paragraph [0015], lines

5-6 of the specification; and at least as shown in FIG. 2. That is, as shown in FIG. 2 below and

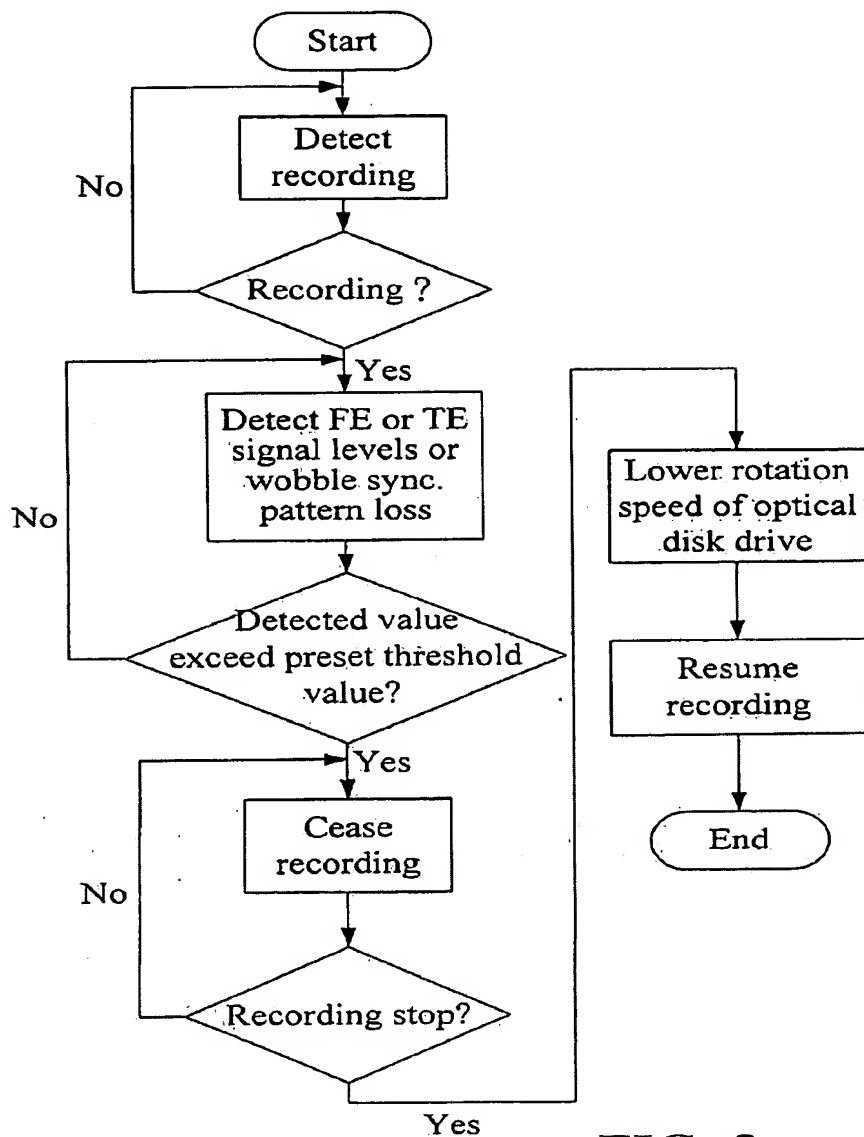


FIG. 2

recited in the specification: "at least one unstable signal source during the recording process is detected, where the unstable signal source is selected from the group of the level of a *focusing error (FE) signal*, the level of a *tracking error (TE) signal*, a *wobble synchronization pattern loss*, the *error rate of demodulating a wobble signal* and the *frequency of the buffer under-run*

occurrence of the optical disk drive" (emphasis added). Therefore, it is respectfully submitted that the amended claim raises no questions of new matter.

In addition, the Final Rejection includes rejections based on anticipation. "Anticipation under 35 USC §102(e) requires that 'each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.'" *In re Robertson*, 49 USPQ 1949, 1950 (Fed.Cir. 1999).

"All words in the claim must be considered in judging the patentability of the claim against the prior art." *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970). As set forth in section 2111 of the MPEP, "claims are interpreted in the broadest reasonable fashion *consistent with the specification*" (emphasis added). The Patent and Trademark Office *is required to take into account whatever enlightenment is afforded by the specification*, *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ 2d 1023, 1027-28 (Fed. Cir. 1997) (emphasis added).

Further, Applicants note that anticipation requires the disclosure, in a prior art reference, of each and every limitation as set forth in the claims.¹ *There must be no difference between the claimed invention and reference disclosure* for an anticipation rejection under 35 U.S.C. §102 (emphasis added).² To properly anticipate a claim, the reference must teach every element of the claim.³ "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference".⁴ "The identical invention must be shown in as complete detail as is contained in the ...claim."⁵ In determining anticipation, *no claim limitation may be ignored* (emphasis added)⁶

Applicants respectfully submit the applied art of Go et al. does not meet the above-discussed threshold for an anticipation rejection. In particular, though the outstanding Office Action asserts that Go et al. discloses all the claimed limitations. However, Applicants

¹ *Titanium Metals Corp. v. Banner*, 227 USPQ 773 (Fed. Cir. 1985).

² *Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 USPQ2d 1001 (Fed. Cir. 1991).

³ See MPEP § 2131.

⁴ *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

⁵ *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

respectfully submit that Go et al. does *not* disclose *each and every limitation of the claim* and in particular, Go et al. does not disclose, as claim 1 recites:

detecting during recording at least one unstable signal source of the optical disk drive and generating a detected value, wherein the unstable signal source is selected from a group including a level of a focusing error signal, a level of a tracking error signal and a frequency of buffer under-run occurrence (emphasis added).

Thus, there are differences between the claimed invention and the reference disclosures of Go et al. and therefore, it is respectfully requested that the outstanding rejections be withdrawn since Go et al. does not disclose, anticipate or inherently teach each limitation of the claimed invention.

Go et al. discloses an apparatus for changing a recording speed of an optical recording medium by *analyzing wobble signals in real time during a recording operation*. (emphasis added).⁷ In particular, Go et al. discloses a control unit 104 includes a state detection unit 104-1, a comparison unit 104-2, a memory 104-3, a recording start/stop control unit 104-4, and a recording speed control unit 104-5.⁸ Further, Go et al., as shown in the flowchart of FIG. 3 below, discloses: a method of changing a recording speed of an optical recording medium that comprises: *starting an analysis of wobble signals on the optical disc in operation 300*, checking an absolute time in a pregroove (ATIP) state in operation 301; determining whether a no good (NG) number is equal to or greater than a reference value in operation 302; *stopping the analysis of the wobble signals in operation 303*; storing time data of a recording stop zone in operation 304; seeking the recording stop zone and pausing in operation 305; lowering the recording speed in the recording stop zone in operation 306; and *restarting the analysis of the wobble signals at the lowered recording speed in operation 307*; determining whether the NG number is equal to or

⁶ *Pac-Tex, Inc. v. Amerace Corp.*, 14 USPQ2d 187 (Fed. Cir. 1990).

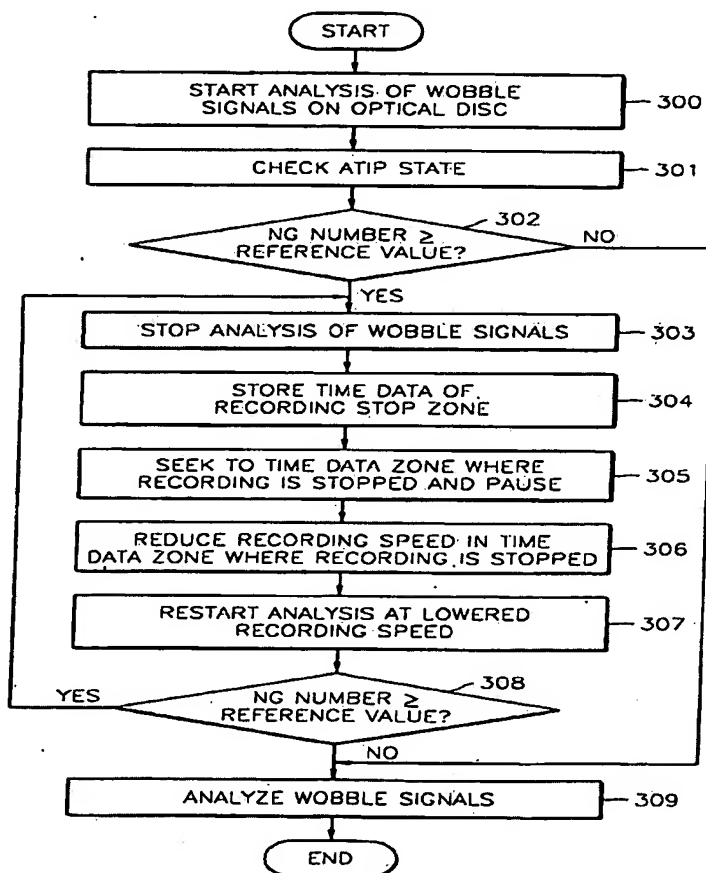
⁷ Go et al. At ABSTRACT.

⁸ *Id.* at FIG. 2; and paragraph [0034].

greater than the reference value in operation 308; and continuously analyzing the wobble signals in operation 309 (emphasis added).⁹

As discussed above and as shown in FIG. 3, the method of changing a recording speed of an optical recording medium, of Go et al. is determined by analyzing wobble signals (emphasis added)

FIG. 3



⁹ *Id.* at FIG. 3; and paragraph [0035].

Further, the background art section of Go et al. discloses: "the recording speed is determined by *measuring a tracking error quality and a focus error quality of a blank disc before a recording operation*" (e.g., see Go et al. at paragraph [0012]) (emphasis added).¹⁰ Thus, in contrast to the claimed invention, Go et al. discloses the tracking error signal and the focus error signal are *not* used for determining whether the recording speed should be changed, "during recording," as recited in the claimed invention. Instead, as discussed above, Go et al. discloses using the wobble signal for this purpose "during recording," as recited in the amended claims. However, as indicated below, references to the "wobble signal" in the claimed invention were removed by the previous amendment to the claims. Therefore, Go et al. does not disclose this limitation of the claimed invention and actually teaches away from the claimed invention.

Claim 1 was previously amended to clarify the invention. In particular, claim 1 presently recites:

wherein the unstable signal source is selected from a the group including a level of a focusing error signal, a level of a tracking error signal, ~~a wobble synchronization pattern loss, an error rate of demodulating a wobble signal~~ and a frequency of buffer under-run occurrence;
ceasing recording if the detected value exceeds a preset threshold value;
decreasing a the rotation speed of the optical disk drive; and
resuming recording with the decreased rotation speed
(emphasis added).

That is, references to detecting an "unstable signal" that is related to a "wobble signal" were canceled from the claims. Specifically, the claimed invention is directed toward "detecting during recording" an "unstable signal source" selected from a group including: (1) "a level of a focusing error signal"; (2) "a level of a tracking error signal" and (3) "a frequency of buffer under-run occurrence during recording," as recited in amended independent claim 1. However, it is respectfully submitted that Go et al. does not disclose "detecting during recording" at least one of: (1) "a level of a focusing error signal"; and (2) "a level of a tracking error signal"; and *does not at all* disclose detecting (3) "a frequency of buffer under-run occurrence."

¹⁰ *Id.* at paragraph [0012].

With respect to limitation (1): “a level of a focusing error signal,” the omission of any reference to Go et al. in the outstanding Office Action at page 5, paragraph 3 is a clear indication that that this particular limitation is not disclosed by Go et al., “during recording.”

Regarding limitation (2): “a level of a tracking error signal,” the outstanding Office Action suggest that FIG. 2 and paragraphs [0020], [0024], [0042] and [0012] of the Go et al. disclose this limitation. However, as discussed above, the reference to using a tracking error signal in Go et al. occurs “before a recording operation” and *not* “during recording, as recited in the claimed invention.

Even considering the counter argument of the outstanding Office Action suggesting use of the disclosure of paragraph [0016], it is respectfully submitted that this disclosure does not overcome the deficiencies of Go et al. In particular, paragraph [0016] of Go et al. discloses: “continuously *checking wobble signals* during the recording operation” (emphasis added). However, as discussed above, use of the “wobble signals” has been canceled from the claims so this disclosure does not read on the claimed invention.

With respect to limitation (3): “a frequency of buffer under-run occurrence,” though Go et al. at paragraph [0052] discloses: “buffer under run and defects of read-in start position and seek fail, which are generated during a ZCLV operation, *are prevented*,” it is respectfully submitted that Go et al. nowhere disclose “detecting” during recording “a buffer under-run occurrence,” as recited in the claimed invention (emphasis added). In fact, since Go et al. discloses that the claimed “buffer under-run occurrences” are “prevented,” it is respectfully submitted that this limitation is not explicitly or inherently disclosed by Go et al. since something (i.e., buffer under-run occurrences”) that is “prevented” is clearly *not* available to be “detected,” as the claim limitation requires. Thus, in contrast to the statement in the Advisory Action suggesting Go et al. discloses: “buffer under-run occurrence during recording” it is respectfully submitted that the claimed limitation is actually *not* disclosed, anticipated or inherently taught by Go et al.¹¹ In fact, it is respectfully submitted that Go et al. not only does not disclose the claimed limitation

¹¹ Advisory Action dated January 17, 2008, at Continuation Sheet, line 6.

but actually teaches away from the need to detect the claimed “buffer under-run occurrences,” since these occurrences are *prevented* in the invention of Go et al.

Furthermore, as to Claim 2, the outstanding Office Action indicates that the feature is “inherently” disclosed in **FIG. 3** and paragraph [0035] of Go et al. However, it is respectfully submitted that Go et al. does not disclose the limitations of Claim 2. That is, in accordance with the claimed invention, the step of checking whether the optical disc drive is recording is preferably performed first because the levels of the tracking error signal and the focus error signal are measured “during recording,” as recited in claim 1, upon which claim 2 ultimately depends.

In contrast to claim 2, as disclosed in paragraph [0012] of Go et al., discloses that the tracking error quality and focus error quality are measured *before a recording operation*. Thus, it is not necessary for Go et al. to check whether the optical disk drive is recording before detection of the tracking error signal or the focusing error signal. In fact, it is respectfully submitted that based on the above-discussion, Go et al. teaches away from the claimed invention. Thus, it is respectfully submitted, the suggestion in the outstanding Office Action that the disclosure of claim 2 is inherent to Go et al. is incorrect.

Thus, in consideration of the discussion above, it is respectfully submitted that Go et al. does *not* disclose the limitation of: “detecting at least one unstable signal source of the optical drive, wherein the unstable signal source is selected from a group including a level of a focusing error signal, a level of a tracking error signal and a frequency of buffer under-run occurrence during recording,” as recited in independent claim 1. Therefore, it is respectfully submitted that Go et al. does not disclose, anticipate or inherently teach the claimed invention and that independent claim 1, and claims dependent thereon, patentably distinguish thereover and it is respectfully requested that the outstanding rejection be withdrawn.

Conclusion

In view of the above, consideration and allowance of all of the claims is respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 22171-00026-US1 from which the undersigned is authorized to draw.

Dated: February 11, 2008

Respectfully submitted,

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